

IN THE CLAIMS:

Please amend the claims as follows:

Claim 1 (original) An immunostimulating composition comprising encapsulating microspheres comprised of (a) a biodegradable-biocompatible poly (DL-lactide-co-glycolide) as the bulk matrix produced by a solvent evaporation process wherein the molecular weight of the copolymer is between 4,000 to 100,000 daltons and (b) an immunogenic substance consisting of a conformationally native subunit of chronic intracellular pathogen which, in the course of natural infection with that pathogen, is exposed to the host immune system on the surface of free pathogen and/or pathogen-infected cells.

Claim 2 (Previously presented) The immunostimulating composition described in claim 1 wherein the immunogenic substance is an antigen and the antigen is pre-encapsulated into a conformationally stabilizing hydrophobic matrix consisting of an appropriate mono, di- or tri-saccharide or other carbohydrate substance by lyophilization prior to its final encapsulation into the PLGA microsphere by a solvent extraction process employing acetonitrile as the polymer solvent, mineral oil as the emulsion's external phase, and heptane as the extractant.

Claim 3. (currently amended) The immunostimulating compositions described in claims 1 ~~or~~ 2 wherein the immunogenic substance is a native (oligomeric) HIV-1 envelope antigen that is conformationally stabilized by the polymer matrix and serves to elicit in animals the production of HIV specific cytotoxic T ~~lymphocytes~~ lymphocytes and antibodies preferentially reactive against native HIV-1 envelope antigen.

Claim 4. (original) The immunostimulating compositions described in claim 3 wherein the amount of said immunogenic substance within the microcapsule comprises between 0.5% to 5.0% of the weight of the composition.

Claim 5. (currently amended) The immunostimulating compositions ~~describe~~ described in claim 4, wherein the relative ratio between the amount of the lactide:glycolide components of said matrix is within the range of 52:48 to 0:100.

Claim 6. (original) The immunostimulating compositions described in claim 5 wherein the molecular weight of said copolymer is between 4,000 to 50,000 daltons.

Claim 7 (Previously presented) A vaccine consisting of a blend of immunostimulating compositions of claim 5.

Claim 8 (previously presented) The immunostimulating composition described in claim 5, employed as a parenterally administered vaccine wherein the diameter size range of said vaccine microspheres lies between 1 nanometer and 20 microns.

Claim 9. (original) The immunostimulating compositions described in claim 5, employed as a mucosal vaccine wherein the size of more than 50% (by volume) of said vaccine microspheres is between 5 to 10 microns in diameter.

Claim 10. (original) A composition in accordance with claim 1 wherein the microspheres further contain a pharmaceutically-acceptable adjuvant.

Claim 11 (previously presented) A vaccine consisting of a blend of immunostimulating compositions of claim 6.

Claim 12. (previously presented) The immunostimulating composition described in claim 6, employed as a parenterally administered vaccine wherein the diameter size range of said vaccine microspheres lies between 1 nanometer and 20 microns.

Claim 13 (previously presented) The immunostimulating compositions described in claim 7 employed as a parenterally administered vaccine wherein the diameter size of said vaccine microspheres lies between 1 nanogram and 20 microns.

Claim 14 (previously presented) The immunostimulating compositions described in claim 6 employed as a mucosal vaccine wherein the size of more than 50% (by volume) of said vaccine microspheres is between 5 to 10 microns in diameter.

Claim 15. (Currently amended) An immunostimulating composition comprising encapsulating microspheres, wherein said encapsulating microspheres comprise: a biodegradable-biocompatible poly(DL-lactide-co-glycolide) as a bulk matrix and

an immunogenic substance comprising a conformationally native subunit of chronic intracellular pathogen, wherein said subunit is gp 160 which, in the course of natural infection with that pathogen, is exposed to the host immune system on the surface of free pathogen and/or pathogen-infected cells.

Claim 16. (previously presented) The immunostimulating composition of claim 15, wherein the encapsulating microspheres are produced by a solvent extraction process.

Claim 17. (previously presented) The immunostimulating composition of claim 15, wherein the encapsulating microspheres are produced by a solvent evaporation process.

Claim 18. (previously presented) The immunostimulating composition of claim 15, wherein the antigen is pre-encapsulated into a conformationally stabilizing hydrophilic matrix comprising an appropriate mono, di- or tri-saccharide or other

carbohydrate substance by lyophilization prior to its final encapsulation into the PLG microsphere.

Claim 19. (previously presented) The immunostimulating composition of claim 18, wherein the encapsulating microspheres are produced by a solvent extraction process.

Claim 20. (previously presented) The immunostimulating composition of claim 19, wherein said solvent extraction process employs acetonitrile as the polymer solvent, mineral oil as the emulsion's external phase, and heptane as the extractant.

Claim 21. (previously presented) The immunostimulating composition of claim 15, wherein said microspheres further comprise a pharmaceutically acceptable adjuvant.

Claim 22. (previously presented) The immunostimulating composition of claim 15, wherein a molecular weight of the poly(DL-lactide-co-glycolide) is 4,000 to 100,000 daltons.

Claim 23. (previously presented) The immunostimulating composition of claim 15, wherein the relative ratio between the amount of the lactide:glycolide components of the matrix is within the range of 52:48 to 0:100.

Claim 24. (cancelled)

Claim 25. (previously presented) The immunostimulating composition of claim 15, wherein the amount of said immunogenic substance with in the microsphere comprises between 0.5% to 5.0% of the weight of said composition.

Claim 26. (previously presented) The immunostimulating composition of claim 15, wherein the diameter size range of the microspheres is between 0.1 - 20 $\mu$ m.

Claim 27. (previously presented) The immunostimulating composition of claim 15, wherein the size of more than 50% (by volume) of the vaccine microspheres is between 5 and 10  $\mu\text{m}$  in diameter.

Claim 28. (previously presented) The immunostimulating composition of claim 15, wherein said immunostimulating composition is administered as a mucosal vaccine or a parenteral vaccine.

Claim 29. (previously presented) The immunostimulating composition of claim 28 in the form of a mucosal administerable vaccine wherein the diameter size range of the vaccine microspheres is between 5-10  $\mu\text{m}$ .

Claim 30. (previously presented) The immunostimulating composition of claim 28 in the form of a parenteral administerable vaccine wherein the diameter size range of the vaccine microspheres is between 0.1 - 20  $\mu\text{m}$ .

Claim 31. (previously presented) The immunostimulating composition of claim 30, wherein said immunogenic substance is present in an amount of 0.5 - 5% antigen by weight.

Claim 32. (previously presented) The immunostimulating composition of claim 15, wherein said bulk matrix encapsulates said immunogenic substance protectively and/or facilitates its interaction with the host immune system to augment its immunogenicity.

Claim 33. (previously presented) A vaccine comprising the immunostimulating composition of claim 15.